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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/735,003	12/11/2000	Douglas Alexander	10541-56	3394

29074 7590 10/31/2003

BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, IL 60611

EXAMINER

DU, THUAN N

ART UNIT	PAPER NUMBER
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2185

DATE MAILED: 10/31/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/735,003

Applicant(s)

ALEXANDER ET AL.

Examiner

Thuan N. Du

Art Unit

2185

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-31 are presented for examination.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shin et al. [Shin] (U.S. Patent No. 6,434,713) and Lioux et al. [Lioux] (U.S. Patent No. 6,274,949).

5. Regarding claims 1, 7, 15, 22 and 25, Shin teaches a method substantially as claimed comprising the steps of:

monitoring a state of a main application processor (processor 30) with a management processor (processor 23) [col. 3, lines 3-9];

detecting a change from a suspend-to-RAM state to a Run state without a request from the management processor (abnormal operation) [col. 3, lines 10-12, 59-62; col. 4, lines 55-57];
and

requesting a transition to a suspend-to-disk state (suspend or shut down) if the main application processor operates abnormally [col. 4, lines 55-59].

Shin does not explicitly teach the suspended state of the main application processor is a transition from a suspend-to-RAM state to a suspend-to-disk state.

Lioux teaches a method for shutting down a processor, when a failure occurs, by changing from a suspend-to-RAM state to a suspend-to-disk state [col. 8, lines 35-37].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Shin and Lioux because it would reduce the power loss while maintaining the fast start up of the system by utilizing the Advanced Configuration and Power Interface (ACPI) states.

6. Regarding claims 2-6, 8-14, 16-21, 23-24 and 26-29, these claims are directed to method steps for powering computer system in a vehicle of claims 1, 7, 15, 22 and 25. As stated above, Shin and Lioux teach the invention substantially as set forth in claims 1, 7, 15, 22 and 25. At the time of the invention, one of ordinary skill in the art would have readily recognized that Shin and Lioux may obviously also teach the method steps of claims 1, 7, 15, 22 and 25 as set forth in claims 2-6, 8-14, 16-21, 23-24 and 26-29. As such, claims 2-6, 8-14, 16-21, 23-24 and 26-29 are rejected under the same rationale with respect to claims 1, 7, 15, 22 and 25.

7. Claim 30 is rejected under 35 U.S.C. 102(b) as being anticipated by Gray et al. [Gray] (U.S. Patent No. 5,151,855)¹.

8. Regarding claim 30, Gray teaches a method of powering a system in a vehicle comprising the steps of:

(a) attempting to place a main application processor (slave processor) in a suspend state [col. 1, lines 35-40; col. 3, lines 11-13]; and

¹ Gray et al. (U.S. Patent No. 5,151,855) was submitted by applicant.

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(b) removing voltage to the main application processor without a reset attempt if (a) fails [col. 3, line 63 to col. 4, line 2; col. 4, lines 40-49].

9. Claims 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gray et al. [Gray] (U.S. Patent No. 5,151,855).

10. Regarding claim 31, according to the Advanced Configuration and Power Interface Specification, a suspend state comprising a suspend-to-RAM state. Therefore, it would have been obvious that Gray instructs the main application processor to enter a suspend-to-RAM state with a management processor.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuan N. Du whose telephone number is (703) 308-6292 or via e-mail, **thuan.du@uspto.gov**. The examiner can normally be reached on Monday-Friday: 9:00 AM - 5:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on (703) 305-9717.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

U.S. Patent and Trademark Office
P.O. Box 2327
Arlington, VA 22202.

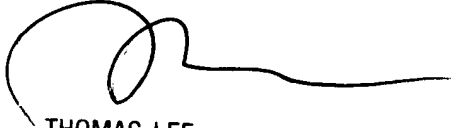
The fax number for the organization is (703) 872-9306.

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Hand-delivered responses should be brought to:

Crystal Park II
2121 Crystal Drive
Arlington, VA 22202
Fourth Floor (Receptionist).

Thuan N. Du
October 22, 2003



THOMAS LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100